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**Living off the land in national parks:
issues for Aboriginal Australians**

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ABSTRACT

Aboriginal people resident in, or traditional owners of, national parks have highly variable legal rights to harvest subsistence resources. In the absence of common law rights to indigenous resources, a wide range of Commonwealth, State and Territory laws often obfuscate these rights. This paper sets out to outline in some detail, mainly in an appendix, Aboriginal harvesting rights in national parks Australia-wide. It then focuses on the situation in the Northern Territory, Western Australia and Queensland, this northern emphasis being predicated on the observation that the subsistence sector is of greatest economic significance to Aboriginal communities in these regions. The paper then marshals available evidence on Aboriginal utilisation of floral and faunal resources in national parks, although some reference is also made to research that quantifies the economic contribution of subsistence in adjacent areas under Aboriginal ownership.

The paper then examines a range of subsistence-related issues, within the broader economic policy framework of the Aboriginal Employment Development Policy (AEDP). These issues include the impact of tourism on access to resources, income support options to facilitate subsistence, the compatibility of subsistence and commercial production, ecological sustainability, Aboriginal management, and the impact of introduced species and technology. The paper ends by identifying a number of policy dilemmas and makes some recommendations. The complex political economy of Aboriginal resource utilisation in national parks and the urgent need for accurate quantitative information on Aboriginal subsistence activities are highlighted in conclusion.

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Hunting is an integral component of a traditional way of life [at Uluru National Park] which, although somewhat modified in recent times, is still of considerable importance (Australian National Parks and Wildlife Service 1991a: 27).

Aboriginal people will be allowed to exercise their traditional rights to fish, hunt and gather wildlife within the [Kakadu National] Park (Australian National Parks and Wildlife Service 1991b: 37).

Provision should be made for the resident Aboriginal community to exercise their right to hunt and forage in the [Watarrka National] Park, but with appropriate safeguards for the ecology of the area and protection for staff and visitors (Conservation Commission of the Northern Territory 1989: 90).

These three quotes encompass a range of issues that will be raised in this paper. The first states that modified hunting remains of significant importance to Anangu residents of Uluru National Park; the second guarantees Gagudju people the right to forage within Kakadu; the third, recognises the right of Luritja people to hunt and forage in Watarrka National Park, but qualifies this right with references to sustainability and tourism interests.

This paper is predicated on the assumption that Aboriginal people who reside in national parks wish to continue to forage (hunt, gather and fish) for both economic and cultural reasons. The key issues are what options exist for, and what issues need to be addressed by, Aboriginal people who wish to continue to practice subsistence activities in national parks. The focus is primarily on national parks that are owned and occupied by Aboriginal people, and consequently the major focus is on national parks in the Northern Territory with less attention on Queensland and Western Australia.

Methods and limits

This paper is not based on primary data collection, but provides an overview of the Australian literature and raises some policy issues and dilemmas. The examination is hampered by lack of pertinent research in Australia, one recent exception being the work of Fiona Walsh in the Rudall River (Karlamilyi) National Park in Western Australia (Walsh 1991). The absence of quantitative research means that one has to rely on qualitative and often anecdotal evidence about Aboriginal subsistence activities in national parks, as in the three prefacing quotes. Alternatively, comprehensive research undertaken on Aboriginal land (that is not designated as national park) must be used as a proxy, utilising the questionable premise that the economic significance of subsistence activities conducted on Aboriginal land are of a similar magnitude to those undertaken in national parks.

The limits of this overview need to be outlined. Aboriginal hunting, fishing and gathering activities have important social, cultural and economic benefits to participating Aboriginal people; however, the emphasis in this paper is on the economic aspects of subsistence. Also, while economic issues cannot be divorced from the political and legal, legal issues have been largely eschewed from this paper and limited to Appendix A. This paper will demonstrate that we know a great deal more about Aboriginal statutory rights to forage in national parks than we do about the extent to which they actually participate in such activities. In Australia there appears to have been an almost obsessive interest in undertaking ecological surveys in national parks, but data on the extent of Aboriginal use of park resources, particularly time series data, has not been collected. This absence of data is of concern because, in its absence, effective wildlife management is impossible.

Rights to forage in national parks

Australian common law has never recognised indigenous hunting, fishing and gathering rights (Law Reform Commission 1986). In the second half of the 19th century legislation was enacted that recognised Aboriginal rights to forage in a number of colonies including Western Australia, Queensland, New South Wales and South Australia (then including the Northern Territory). Since Federation most legislation has been amended, resulting in a considerable reduction in the rights of Aboriginal people to hunt and fish for food.

Fisher (1984) provides a comprehensive summary of the range of highly variable contemporary Commonwealth, State and Territory wildlife and fisheries laws. In Appendix A these laws are summarised with respect to Aboriginal access to subsistence resources in the main national parks in which Aboriginal people have a major direct interest. Today, there are some 3,225 conservation reserves in Australia covering 408,000 square kilometres or approximately 5.3 per cent of Australia's total land area. While this area is smaller than the 1,000,000 square kilometres (13 per cent of Australia) that is Aboriginal freehold, leasehold or reserve land, it is still a significant resource. (Of course, some Aboriginal land includes national parks like Kakadu and Uluru.) There are a wide range of land tenure systems in Australia. In Table 1 a synopsis is provided of Aboriginal rights to forage and fish both on and off national parks.

The Northern Territory situation provides Aboriginal people with the greatest options. Under Commonwealth and Northern Territory law Aboriginal people are able to hunt, in the most part unrestricted by

Table 1. Synopsis of Aboriginal rights to forage on and off national parks, Aboriginal ownership of parks and Aboriginal involvement in park management (see Appendix A).

State/ Territory	Right to forage		Aboriginal owners of some parks	Aborigines involved in park management
	in national parks	off national parks		
Northern Territory	yes	yes	yes	yes
New South Wales	no	yes (with permission of landowner)	Yes (legislation not yet passed)	yes (legislation not yet passed)
Western Australia	yes (not nature reserves)	yes	no	yes (legislation not yet passed)
Queensland	yes (if have ownership)	no	yes (if Aboriginal land under new Act)	yes
South Australia	with proclamation	yes	no	no (proposed)
Victoria	no	no	no	no
Australian Capital Territory	yes	yes	no	no
Tasmania	no	yes (some species with permit)	no	no

conservation laws, on Aboriginal land that covers nearly 500,000 square kilometres (Fisher 1984: vii). This Aboriginal land includes major national parks like Uluru, Kakadu, Nitmiluk and Gurig that are all leased-back to Commonwealth and Territory park authorities. This lack of restriction extends beyond Aboriginal land on to leased Crown land; s.42 of the Northern Territory *Crown Lands Act 1978* has a reservation that allows Aboriginal people unrestricted access to game. Similarly in the Northern Territory Aboriginal people are unrestricted by fisheries laws and regulations when fishing for subsistence. At the other end of the spectrum is Tasmania where Aboriginal people own no parks and play no role in park management. And while Aboriginal people are allowed, with permits, to hunt possum and mutton birds off national parks, this right is also available to non-Aboriginal people.

The extent of legislative variation both between States and Territories, and in some cases within them, is of concern in terms of equity: if Aboriginal people are to live off the land then they are better off in some States or Territories (especially the Northern Territory) than in others. An issue that is often raised in discussions about Aboriginal foraging both on and off national parks is the strength of distinctly Aboriginal economic and cultural practices that are often subsumed under the undefined rubric 'traditionality'. This is a complex issue. There is no doubt that many Aboriginal people living in remote rural regions demonstrate strong continuities with pre-contact lifestyles. There is also strong evidence that a combination of land rights and resource rights can often operate as a catalyst to resurrect apparently defunct foraging economies. This is partly because people living at such remote localities frequently have few economic options in the mainstream labour market; locational disadvantage with respect of formal jobs is converted to locational advantage in terms of access to subsistence resources. It is not surprising that the outstations movement is strongest in the Northern Territory (Blanchard 1987, Altman and Taylor 1989), where indigenous rights to subsistence resources are most strongly guaranteed by statute.

Is subsistence significant?: marshalling the evidence

The crucial issue is whether Aboriginal people hunt, fish and gather in national parks when such activities are permitted by law or at least not prevented in practice. The quantitative data that exist to address this issue have, unfortunately, been collected by researchers working with Aboriginal people who live on Aboriginal land that is off, rather than in, national parks. These studies can be used as approximations of the extent of subsistence activity in national parks, based on the assumption that, to paraphrase Williams (1986: 131), 'a [park] boundary is to cross'. Certainly there is strong evidence that Aboriginal people do not

differentiate between park land and other Aboriginal or non-Aboriginal land (see Walsh 1991), especially in regions like the Northern Territory pastoral zone where Aboriginal hunting on pastoral leases is permitted.

On the other hand one can speculate that the significance of subsistence would be lower in national parks than at outstations on Aboriginal land for the following reasons:

- i The greater access to cash income and to retail outlets, often catering primarily for tourists or miners, in or adjacent to national parks. Examples include Yulara, excised from Uluru National Park, and Jabiru in Kakadu National Park.
- ii Restrictions on access to land and its resources in national parks that are either specified in plans of management or that are the result of heavy tourist usage. Examples include the specified hunting and non-hunting zones in Watarrka (Kings Canyon) National Park and Gurig National Park.
- iii The alternative income earning opportunities in employment or self-employment (especially artefacts manufacture) that exist in national parks in contrast to outstations. In some situations it may make sound economic sense to concentrate productive work effort on market-oriented rather than subsistence activities.

Three important questions need to be addressed in the national parks context. Over the seasonal cycle, how important is subsistence in the Aboriginal diet, as a source of imputed income, and as 'informal' employment? Altman and Taylor (1989) summarise published quantitative research to 1987. At that time only three major studies were available (Meehan 1982, Altman 1987, Cane and Stanley 1985). Since then work has been completed by Devitt (1988) and Palmer and Brady (1988) and research by Walsh (1991) is currently under way. The research that has been completed has been undertaken from a variety of disciplinary perspectives including prehistory, anthropology and botany, but economists have generally ignored the value of Aboriginal subsistence primarily because it is outside the market economy. It is of interest that almost all plans of management for national parks have comprehensive lists of exploited indigenous and introduced resources, but little else (see, for example, Australian National Parks and Wildlife Service 1991a: 27-8). It is also interesting that some of the best quantitative data available are for feral species, like water buffalo in Kakadu, but there are extremely limited data on indigenous species, sustainable rates of utilisation and actual rates of exploitation, both by Aboriginal and non-Aboriginal hunters and fishers.

An attempt is made to summarise briefly the available data on the economic significance of Aboriginal subsistence activities, although the focus is almost entirely on dietary rather than economic significance. The survey starts with subsistence in national parks and then considers subsistence activities at outstations on Aboriginal land outside park boundaries.

Kakadu National Park

A preliminary study of Aboriginal diet by Beck (1986: 14) in the Alligator Rivers region, which includes Kakadu National Park, shows that hunted bush foods (primarily meats) contribute only a minor part of the total food intake. However, feral buffalo meat is supplied weekly to four places, and less regularly to other places, by the Gagudju Association. This means that bush foods are the major portion of the diet. Beck estimated that approximately 3.15 kg gross weight/head/day of bush food and 1.2 kg gross weight/head/day of store bought food was consumed, but her estimates were based on a very small number of bush trips with Aboriginal informants (Beck 1986: 27). The most comprehensive data available have been collected by Peter Wellings (pers. comm.) during 15 hunting trips out of Nourlangie ranger station in 1986. These data are of particular interest as an indicator of the range of bush foods consumed; no attempt was made to assess the overall significance of bush food in the diet (see Altman 1988: 196-97).

Rudall River (Karlamilyi) National Park, Western Australia

Fiona Walsh conducted ethnobiological research over a period of seven months at two Aboriginal communities, Punmu and Parnngurr in Rudall River (Karlamilyi) National Park in the Great Sandy Desert. The quantitative data collected showed that Martu people continue to make extensive use of the resources of the region. They have a modified traditional lifestyle in which subsistence activities play a significant role. Most subsistence activities (86 per cent) were conducted within Park boundaries. The Martu diet was dominated by animal food, with at least 24 species utilised, but also included at least 40 plant species (Walsh 1991). Walsh (pers. comm.) estimates bush food consumption at 342 grams of meat and 367 grams of vegetable per person per day.

Purnululu (Bungle Bungle) National Park, Western Australia

The plan of management strategy is to reserve areas within the Park for use by Aboriginal people for hunting and gathering and other traditional activities such as ceremonies (Department of Conservation and Land Management 1989: 40). Feral cattle have been an important food source as 'killers', but their importance has drastically declined in the last three years as the State Department of Agriculture has removed 28,000 head in accordance with the interim Plan of Management (Ian Kirkby pers. comm.).

Central Arnhem Land

For four months representative of four seasons between July 1972 and July 1973, Meehan (1982: 154-6) collected data on subsistence foods production at Kopanga outstation in coastal central Arnhem Land. Meehan calculated that 49 per cent of energy intake and 82 per cent of protein intake came from the bush. Altman (1987) collected data working with Gunwinggu people at Momega outstation, some 80 kilometres south-west of Kopanga, that generated estimates of a similar magnitude during a dietary survey that extended over 296 days between October 1979 and November 1980. Altman's study (1987: 31-45) indicated that 46 per cent of energy intake and 81 per cent of protein came from the bush. Both Meehan and Altman suggest that the structure of the contemporary diet has a resemblance to that of traditional times; however, store-bought foods have replaced most indigenous gathered vegetable food.

Central Australia

Devitt's study of Aboriginal people at remote outstations in the Sandover River region of arid central Australia, Northern Territory, who combined foraging with the use of purchased foods, showed that women's foraged plant and other foods contributed only a small part of the diet. Men's hunting (for kangaroos, bush turkeys, perentis and lizards) contributed the major amount of energy and protein from subsistence foods. At Angwele outstation in June 1981, Devitt estimated that 31 per cent of total dietary energy and 73.5 per cent of total protein was supplied from subsistence activities (Devitt 1988: iii, 85).

Cane and Stanley (1985) provide the only published data for outstations in central Australia. Overall, they estimate (1985: 197) that bush foods only made a major dietary contribution at two camps out of 32 visited; at 14 camps bush foods made a moderate contribution and at 16 a minor contribution.

Maralinga lands

Palmer and Brady (1988) undertook four surveys of 12 days duration each over a year at Oak Valley, an outstation located in the Maralinga lands in South Australia. Their study indicates that bush food is consumed at the rate of 605 grams/person/day. This rate of consumption is exceptionally high compared with other contemporary hunter-gatherer societies. Kangaroo is the most commonly consumed meat (560 grams/person/day), followed by rabbit, turkey, grubs and reptiles. Vegetable foods form an insignificant portion of the diet (1988: 83).

Summary

Available evidence suggests that game and fish make the major bush food contribution to contemporary diets. There has only been one attempt (Altman 1987) to convert this information to two key variables: the dollar

value of subsistence and its significance in terms of Aboriginal employment. It is somewhat salutary to note that this exercise was undertaken with data collected over a decade ago in 1979/80. In this exercise it was demonstrated that when bush food production was valued at market replacement prices it accounted for 64 per cent of total (cash and imputed) income at Momega outstation. Even using lower factor prices (at Sydney rather than outstation replacement rates) the economist Fisk (1985: 23) estimated that subsistence represented 49 per cent of outstation income. Similarly, when work in the subsistence sector in hunting, fishing and gathering activities was quantified and regarded as employment, its contribution was significant. Time allocation data collected by Altman (1987) over a 253-day survey period showed that on average all adults spent an average 2.6 hours per day or 18 hours per week on subsistence. This represented 72 per cent of productive work effort. Elsewhere (Altman and Taylor 1989: 67-8) it has been argued using these data that if employment were re-defined to include informal activities and recognising that adult work participation rates were 100 per cent, then people at Momega outstation were fully employed, even by the standards of the wider society.

Whether these data from an outstation in Arnhem Land are applicable to Aboriginal people residing in national parks is questionable. Nevertheless, the possibility of attaining such income and employment contributions from subsistence must inform government policy, especially the Aboriginal Employment Development Policy (AEDP) with its aims of employment and income equity by the year 2000.

Subsistence-related issues in national parks

Maintaining our premise that Aboriginal people who own and/or reside in national parks wish to retain a right to subsistence, a range of issues are identified that may impinge on such rights. This list is not exhaustive and aims in part to highlight policy issues and inconsistencies; some of the discussion may be contentious.

Impact of tourism

Tourist visitation to national parks can have both direct and indirect negative impacts on Aboriginal subsistence activities. Direct impacts occur at locations like Kakadu National Park where Aboriginal people who are harvesting resources for a livelihood are in direct competition with recreational fishers. It is interesting in this regard that in national parks aquafauna is regarded as quite different from other fauna. Hence in Gurig National Park, by-laws limit harvesting of plants and animals to traditional owners or permit holders (safari operators), but fish and marine invertebrates are excluded from such by-laws (Conservation

Commission of the Northern Territory 1987: 112). At Kakadu there is concern about the impact of fishing (Australian National Parks and Wildlife Service 1991b: 37) but authorities are reluctant to prohibit such activities for political reasons even though it is acknowledged that some species will respond slowly to current controls like catch limits. Concern about outsiders exploiting local resources is not limited to tourists; at Kakadu, over the years, there has also been continual concern about non-local Aboriginal people hunting in the Park (Altman 1988: 196).

The indirect impact of tourism may be greater than the direct pressure. For example, at Kakadu, as visitor numbers grow, park authorities are keen to disperse visitors to ameliorate environmental impacts. However, such dispersal can run counter to the economic interests of Aboriginal park owners and residents who wish to undertake hunting and gathering activities, but are reluctant to do so within view of tourists for both public relations and safety reasons (Altman 1988: 197). Paradoxically, one can often see concentrations of wildlife in the proximity of camp grounds where there is no predation pressure.

There is no doubt that there is an inverse relationship between tourism growth and Aboriginal access to subsistence. An important issue that needs to be addressed is to what extent Aboriginal people are willing to live off the land indirectly, via involvement in the tourism industry, rather than directly, via subsistence.

Income support options to facilitate subsistence

As noted above, the Aboriginal affairs economic policy thrust of the Federal Government is encompassed in the AEDP. Despite a great deal of lip service paid to 'traditional' activities, the issue of subsistence is generally marginalised in policy debate and the comparative economic advantages that Aboriginal people in remote areas enjoy in such activities are either ignored or tolerated, but are rarely encouraged. Policy discussion about national parks (Australian Government 1987) generally emphasises Aboriginal employment in environmental management or involvement in tourism.

One of the main policy problems with facilitating subsistence, both on and off national parks, is that its limited economic significance will mean that participants will never be economically independent and will always require some form of income support. This reality though is as much a function of living in areas that are largely devoid of active labour markets as of the limited potential of subsistence. The options at the moment are the usual range of pensions, Job Search Allowance and Newstart and the Community Development Employment Projects (CDEP) scheme (Altman 1991). CDEP scheme projects can be tailored to facilitate a hunting economy either in a national park or on Aboriginal land. However, there

is no evidence that this has been done. This is partly because subsistence is primarily a domestic or household rather than 'community' activity. The recommendation has been made in the past that a guaranteed minimum income scheme may be the preferable means to encourage subsistence (Altman and Taylor 1989) and this may be especially the case now that unemployment benefits have been abolished.

Subsistence and commerce

Most wildlife regulations that allow Aboriginal exploitation of floral and faunal species specify that such exploitation must be for subsistence and not for commercial objectives. The basis for such restrictions appear to be twofold. First, there is concern that commercial exploitation will result in depletion of species. Second, there is a view that while subsistence activities can be justified on the grounds of being 'traditional', commercial exploitation of species cannot fall into this category.

The issue of commercial exploitation of species is fraught with contradictions. For example, there is a common view that commercial hunting and fishing is incompatible with national park aims. However, conservation principles do not preclude safari hunting for banteng cattle, sambar deer, buffalo and pig, all introduced species in Gurig National Park. Nor do they interfere with eradication programs. One can find positive views expressed about eradication of feral water buffalo or rabbit populations, but a negative view of their commercial exploitation. And while commercial fishing is prohibited in Kakadu National Park (Australian National Parks and Wildlife Service 1991b: 37), in the nearby Cobourg Marine Park where the Conservation Commission regulates conservation under the Northern Territory *Territory Parks and Wildlife Act 1976* commercial fishing is not prohibited. The issue of commercial exploitation of species in national parks is obviously contentious. But where Aboriginal people own national parks one can question whether their rights to exploit species, and especially introduced feral species, should be curtailed.

Ecological sustainability

The issue of sustainability is a central concern of policy makers at present with a number of sustainable development working groups to report to the Prime Minister this year. The issue of sustainable yields of floral and faunal resources is obviously an important issue for Aboriginal people in national parks, especially because of its inter-generational equity implications. In the absence of reliable information on the long-term utilisation of species it is difficult to make any definitive statements about sustainability. Comments about sustainability tend to be couched in negative rather than positive terms. For example, the latest draft Uluru National Park Plan of Management states that 'Anangu hunt in remote areas of the Park and on Aboriginal land outside the Park. There is no

evidence that Anangu subsistence hunting has a significant effect on the populations of wild animals' (Australian National Parks and Wildlife Service 1991a: 28). It is unclear what evidence exists to support this statement.

One of the consequences of unsubstantiated concerns about sustainability is that Aboriginal access to resources may be limited unnecessarily. For example, Watarrka National Park is divided into zones, with one being specifically for Aboriginal hunting and foraging. Similarly at Nitmiluk National Park only two areas of the Park, Gorge Camp and an area to the South of Edith Falls, are zoned for hunting. It is difficult to determine if such restrictions will be effective, especially when national parks adjoin Aboriginal land (as at Nitmiluk) where hunting is unrestricted. Zoning restrictions could result in the overuse of particular areas.

Aboriginal management

Aboriginal participation in the management of national parks in which they have an interest is either occurring or is proposed in five of eight States and Territories. However, what this means to Aboriginal people who wish to hunt and gather varies from one national park plan of management to another. Perhaps the strongest guarantees are provided under a 1985 amendment to the federal *National Parks and Wildlife Conservation Act 1975* which states under sub-s.14C(5) that where a national park is on Aboriginal land the Minister and the relevant Aboriginal land council must establish a Board of Management, the majority of which shall be Aboriginal and nominated by the traditional owners. The intention of this amendment is to ensure Aboriginal control over their land and that their interests, including hunting and gathering in parks, are given priority.

The key subsistence-related question that Aboriginal communities in national parks need to raise is to what extent they wish to optimise the utilisation of subsistence resources and over what time frame such utilisation should occur. There is absolutely no doubt that there is a need for Aboriginal participation in species management and in the monitoring of species utilisation. This is partly because Aboriginal people can bring a certain type of expertise to management, especially with intervention like the use of fire to increase stocks of indigenous species. The issue that must be urgently addressed is how such involvement can be facilitated. In Canada, for example, the Income Security Program (ISP) established for Cree hunters in north Quebec provides guaranteed income to allow Cree to hunt. With the ISP, production is linked to people's need and there is no incentive to over-produce. Indeed there is a voluntary decrease in hunting in overused areas, and other wildlife conservation practices such as monitoring the numbers of certain game are recognised as hunting-related work under the ISP (Altman and Taylor 1989: 58). Again, a

crucial issue that must be addressed is the need for information: neither Aboriginal nor non-Aboriginal park managers can operate effectively in an information void.

Introduced species and technology

The twin issues of introduced floral and faunal species and introduced technology are examined jointly; both have positive and negative implications for Aboriginal subsistence. The introduction of feral species has resulted in important resource shifts. For example, in Arnhem Land Aboriginal people adapted quickly to utilise feral water buffalo (Altman 1982); in central Australia rabbits are exploited for both subsistence and commercial sale (Andrew McNee pers. comm.); in Western Australia Walsh (1991) documents the exploitation of feral cats in Rudall River National Park; and in Purnululu National Park feral cattle are utilised (Ian Kirkby pers. comm.).

One of the problems associated with introduced species is their negative impact on the environment as demonstrated with buffalo on wetlands. However, with the eradication of feral species (like feral cattle at Purnululu or feral water buffalo at Kakadu) important economic resources can suddenly disappear. In Kakadu National Park traditional owners have negotiated with the Australian National Parks and Wildlife Service to maintain a small clean herd of buffalo in the Park for utilisation by the Gagudju Association. Interestingly, with the eradication of introduced species there is also some evidence of shifts to exploit indigenous fauna. In Kakadu, for example, Peter Wellings (pers. comm.) reports an increased exploitation of estuarine crocodiles by some Aboriginal residents as a replacement for feral buffalo. Some introduced floral species, however, like *mimosa pigra* and *salvinia* and introduced fauna like the cane toad only have a negative impact and local people are as keen to eradicate these as are park authorities.

Introduced technology also has both positive and negative impacts. There is no doubt that the introduction of modern equipment, especially guns and vehicles, has greatly increased hunting and gathering efficiency and the range that can be readily exploited (Altman 1987). On the other hand such modern technology also opens up the possibility of over-exploitation, especially during seasonal resource peaks. This has led to legislative requirements in some States (like Queensland) that Aboriginal exploitation of marine products or fauna should be by traditional means only (Law Reform Commission 1986: 152). However, these traditional means are never clearly specified: it is not clear for example whether spears have to be made of stone or of steel or whether guns have now been used for long enough to be regarded as 'traditional'. In any case, the crucial point is surely the level of sustainable resource exploitation: stocks of marine turtles or dugong can be depleted quite effectively with a dug-

out canoe and ironwood harpoon. The question, what are sustainable levels of resource use, remains. This question can only be answered when research provides quantitative data on present levels of resource use and their environmental impacts.

Policy dilemmas, implications and recommendations

The situation with respect to Aboriginal rights to subsistence in national parks is extremely variable in different Australian States and Territories and in this respect there are unfortunate analogies with the variable Aboriginal land rights laws throughout Australia. Not surprisingly, there is some correlation between the strength of Aboriginal land rights law and Aboriginal rights in national parks, with Aboriginal people in the Northern Territory being in the best position. This lack of equity means that some Aboriginal people have far greater options for living off the land in national parks than others.

It is of concern that the whole issue of subsistence is marginalised both in economic policy and national parks debates. It seems that in the absence of other economic options, and given the very mixed Aboriginal response to commercial opportunities in the tourism industry, subsistence remains an important alternative means to generate (imputed) income. If subsistence is to remain an option for Aboriginal people residing in national parks, then it is important that subsistence skills are transferred from one generation to the next. All too often policy makers regard subsistence as traditionalist and as a thing of the past. The viability of subsistence in the longer-run will also require that species are available for future use; and there is an urgent need to ensure that exploitation of resources is maintained at sustainable levels.

The political economy of resource exploitation in national parks is complex and the interplay between Aboriginal and other interests demonstrates an array of alliances, conflicts and cross-cutting cleavages. For example, in some national parks one sees the recreational fishing lobby in direct conflict with Aboriginal traditional owners who regard their subsistence livelihood as jeopardised by people who basically fish for sport. Similarly, environmentalists who are often closely allied with Aboriginal interests, frequently want to eradicate feral species that have become an integral part of the Aboriginal subsistence economy. And the politics of tradeoffs also looms large in national parks. For example, where Aboriginal people oppose mining they may need the support of both the environmentalists and the sport fishers' lobby. And in situations where tourism is well established, subsistence activities may need to be relegated in importance if land rights and lease-back arrangements are to occur. All too often in these tradeoffs it appears that Aboriginal economic

interests, including access to subsistence resources and resources to exploit them, are relegated to a secondary status.

We conclude by highlighting the urgent need for research on the economic significance of Aboriginal subsistence activities in national parks and on the contemporary impacts of resource exploitation on wildlife stocks. It is only through the monitoring of contemporary subsistence activities that park boards of management (increasingly with Aboriginal majorities or at least representation) will be able to make informed decisions. It is imperative, of course, that Aboriginal people support and participate in such research, for without local cooperation effective research will be impossible and its results will be inaccurate. Accurate quantitative information will empower Aboriginal people to make important political statements about the economic value of subsistence and to have greater influence on national parks policy.

Appendix A. The subsistence rights of Aboriginal people in major national parks in Australia.

Northern Territory

Uluru (Ayers Rock-Mount Olga) National Park

Uluru management is governed by the federal *National Parks and Wildlife Conservation Act 1975*. Many Pitjantjatjara and Yankunytjatjara people live in the Park. They own the Park and have a lease-back arrangement with the Australian National Parks and Wildlife Service. A 1985 amendment to the Act states that where a national park is on Aboriginal land the Minister and the relevant Aboriginal land council must establish a board of management, the majority of which shall be Aboriginal and nominated by the traditional owners (sub-s.14C(5)). The Uluru-Kata Tjuta Board of Management must have six of its nine members nominated by the traditional Aboriginal owners. A new Plan of Management is currently nearing completion (Australian National Parks and Wildlife Service 1991a: 1-7) which acknowledges hunting as a component of traditional life and as an activity which can be carried out in the park, and lists the species now utilised (Australian National Parks and Wildlife Service 1991a: 27-8). The Park contracts or employs Anangu owners to provide ecological advice in the planning and implementation of management strategies in the Park (Australian National Parks and Wildlife Service 1991a: 11).

Current activities which may have both positive and negative effects on the ability of Aboriginal people to utilise subsistence resources in the Park include a rabbit control program which commenced in 1989; the possible re-introduction of the brush-tailed possum following the completion of a feasibility study; the 1991 Uluru Fauna Survey; and plans to prohibit use of fire from some areas. (Fire regimes are used by Aboriginal people in central Australia for ecosystem manipulation.)

Kakadu National Park

Kakadu's management is under the control of the federal *National Parks and Wildlife Conservation Act 1975*. Proclaimed in 1979, its Aboriginal-owned land is leased to the Director, Australian National Parks and Wildlife Service. The creation of the Park required an amendment to this Act and to the *Aboriginal Land Rights (Northern Territory) Act*. The recent decision not to mine at Coronation Hill in the Kakadu Conservation

Zone, means that the Jawoyn people will go ahead with their land claim and the area could eventually become part of Stage 3 of Kakadu National Park.

Many of the traditional owners live in Kakadu National Park. The new Third Plan of Management is in the final stages of preparation. It is the first since the formation of the Kakadu Board of Management, the inclusion of Kakadu Stage 3 into Kakadu National Park and the establishment of the Kakadu Conservation Zone (Australian National Parks and Wildlife Service 1991b: 1-4). The Plan supports the maintenance of traditional practices by Aboriginal owners, including the right to hunt and forage in the Park (subject to limitations on the hunting of endangered species), and the utilisation of Aboriginal expertise on indigenous flora and fauna in formulating management prescriptions (Australian National Parks and Wildlife Service 1991b: 21, 29, 37).

Two recent issues which could affect the ability of Aborigines to gain a living from the Park are that although commercial fishing has been phased out, recreational fishing by tourists will continue in specified areas even though the impact of this is likely to increase; and feral buffalo and pigs will continue to be removed. A small herd of buffalo will be maintained by the Gagudju Association within the Park (Australian National Parks and Wildlife Service 1986: 41).

Gurig (Cobourg) National Park

Gurig National Park is managed under the Northern Territory *Territory Parks and Wildlife Conservation Act 1976* which allows Aborigines unrestricted rights to hunt for food for ceremonial and other purposes in the Northern Territory. However, under s.29 they are prohibited from selling a protected animal without a permit (Law Reform Commission 1986: 143). The federal *Aboriginal Land Rights (Northern Territory) Act, 1976* also applies. This Act allows the application of Northern Territory laws to Aboriginal land, to the extent that they are capable of operating concurrently with the Commonwealth Act (Law Reform Commission 1986: 144).

The joint involvement of the Conservation Commission of the Northern Territory and Aboriginal people in the management of the Gurig National Park is required by provisions in the Northern Territory *Cobourg Peninsula (Gurig) Aboriginal Land and Sanctuary Act 1981*. This Aboriginal land is vested in the Cobourg Peninsula Sanctuary Land Trust (ss.5-7). Under sub-s.19(1) the Cobourg Peninsula Sanctuary Board of Management is composed of eight members appointed by the minister; four of these members, including the chairman, are appointed on the recommendation of the Northern Land Council. Before taking certain actions the Northern Land Council is required to consult with traditional owners (s.4). The Board must prepare a Plan of Management for the Park which regulates the taking of animals and fish, but must allow Aborigines who traditionally use and occupy the sanctuary to hunt and fish. By-laws are required to ensure that plants and animals (excluding fish and marine invertebrates) will not be harvested, except by traditional owners or with a permit (Conservation Commission of the Northern Territory 1987: 144-5).

The Plan of Management states that Aboriginal knowledge of vegetation should be documented for management purposes. The aim is to provide for sustained harvesting of native animals and plants, although there is an abundance of food. The Plan lists the native animals used as food-sources by Aboriginal people living in the Park - dugong and sea foods are of most importance. Introduced animals including buffalo, deer, and pigs are also used as food (Conservation Commission of the Northern Territory 1987: 36, 40-43, 50). There has been some removal of buffalo under the eradication program but a large herd still exists (M. Butler pers. comm.).

Cobourg Marine Park

The Cobourg Marine Park was declared adjacent to the Cobourg Sanctuary. The Conservation Commission of the Northern Territory regulates conservation in the Marine Park under the Northern Territory *Territory Parks and Wildlife Act 1976* (not the

Cobourg Peninsula (Gurig) Aboriginal Land and Sanctuary Act 1981). Under the Northern Territory *Territory Parks and Wildlife Act 1976* the Conservation Commission of the Northern Territory does not have to consult with a board of management and land council, thus reducing Aboriginal people's control. They would not, for example, be able to prevent commercial fishing. A recent change to the Act allows the Cobourg Board of Management to act in an advisory capacity. A Plan of Management is in preparation (Mike Butler pers. comm.).

Nitmiluk National Park

The Nitmiluk National Park Plan of Management is not yet available. Two areas of the Park are zoned for hunting - Gorge Camp and an area south of Edith Falls. Only a small number of Aboriginal people live within the Park and little hunting is reportedly undertaken. Hunting in the region is carried out by Jawoyn people residing at Barunga, Beswick and Eva Valley where large areas are under control of the Jawoyn people. Their hunting of wallaby, echidna and turtles forms a large part of their diets (T. Vigus pers. comm.).

Watarrka (Kings Canyon) National Park

The land over which Watarrka National Park is gazetted was purchased from Tempe Downs Pty Ltd, a pastoral lease, in 1983. This land is held by the Northern Territory Conservation Land Corporation and is not Aboriginal land in a statutory sense. Nevertheless, Luritja people from a wide area have come back to take up residence on their traditional country in three designated living areas within the Park. A local management committee with Aboriginal representation has been established (Conservation Commission of the Northern Territory 1989: 85). The Park is divided into zones, one of which is specifically designated to provide Aboriginal people with an opportunity to forage and hunt. The Plan of Management provides a commitment to encourage Aboriginal participation in the Conservation Commission of the Northern Territory's wildlife monitoring and research program.

Western Australia

Purnululu (Bungle Bungle) National Park

The Western Australian *Aboriginal Affairs Planning Authority Act 1972* and the Western Australian *Wildlife Conservation Act 1950* apply. The *Wildlife Conservation Act 1950* allows Aborigines to take flora and fauna for food from national parks and all other land except a nature reserve or wildlife sanctuary (s.28); Aborigines may take sufficient food only for a family (but not for sale or if the species is likely to be unduly depleted), and this requires the consent of the occupier of the land. In the case of national parks, the consent of the Executive Director of the Department of Conservation and Land Management is required (Department of Conservation and Land Management 1989: 39). The strategy in the Park's Plan of Management is to reserve areas within the Park for use by Aboriginal people for traditional activities such as hunting, gathering and ceremonies (Department of Conservation and Land Management 1989: 40). There is no permanent occupation of the Park; Aboriginal people move in and out. Feral cattle are important as 'killers', but their importance has drastically declined in the last three years as the Department of Agriculture has removed 28,000 head in accordance with the draft Plan of Management. A small residual herd is still present in the Park (Ian Kirkby pers. comm.).

A Committee has been formed to investigate Aboriginal rights to hunt and gather in nature reserves. The Committee believes existing problems can be dealt with by amending the Act; amending the purpose of nature reserves where this is a problem; or forming a new category of park or reserve. The Committee will give priority to Aboriginal people being involved in the running and monitoring of parks and are investigating the formation of an Aboriginal Commission, to which some of the authority of the legislation could be devolved. Purnululu has an Aboriginal Advisory Council (Barry Wilson pers. comm.).

Rudall River (Karlamilyi) National Park

Walsh (1991) conducted ethnobiological research over a period of seven months at two Aboriginal communities (Punmu and Parnngurr in Rudall River (Karlamilyi) National Park in the Great Sandy Desert, Western Australia). The quantitative data collected showed that Martu continue to make extensive use of the resources of the region, through a tradition-oriented lifestyle in which subsistence activities play a significant role. The Martu diet was dominated by animal food with at least 24 species utilised, and at least 40 plant species used for food (Walsh 1991).

Queensland

Rokeby and Archer Bend National Parks

The new *Queensland Aboriginal Land Act 1991* allows for claims over national parks on the grounds of traditional or historical associations. Such parks have to be gazetted for claim in the first instance, and are subject to lease-back in perpetuity to the Crown in the event of the claim being successful.

A new *Nature Conservation Act* to replace the *Queensland National Parks and Wildlife Act 1975* is currently (August 1991) being prepared. This legislation will enable conservation covenants of various kinds to be negotiated over all types of land, including Aboriginal freehold. It will therefore have the potential to greatly influence the management and use (including subsistence use) of Aboriginal land. One option being considered is to extend the existing hunting and gathering rights of Aboriginal residents of reserve (Deed of Grant in Trust or DOGIT) lands to other types of land, with the permission of the landholder. The Act will also contain provisions relating to co-managed national parks (David Martin pers. comm.). Under the present Act no hunting and gathering can be legally carried out in parks and no specific mention is made of Aborigines. Under the new Act co-managed parks will be required to have management plans; work is proceeding on these. In those parks which Aborigines successfully claim, management of the park would be jointly carried out between the Aboriginal owners and other interest groups (Noel Dawson pers. comm.).

Great Barrier Marine Park

The park is created and managed under the federal *Great Barrier Marine Park Act 1975*. The Marine Park Authority's zoning plans provide for the control of marine parks in the Great Barrier Reef region (s.5). Marine parks have been declared in the Far Northern Section, the Cairns and Cormorant Pass, and several other sections making an area of 384,700 sq. kms. However, in the preparation of the zoning plans, the Authority is not required to specifically take into account Aboriginal and Islander interests and there is no requirement for consultation with traditional inhabitants. No reference is specifically made to hunting and fishing (Law Reform Commission 1986: 164).

Cairns and Cormorant Pass Zoning Plans

The plans in this section of the Great Barrier Marine Park divide the area into zones where specific activities may occur such as research or preservation. Traditional hunting and fishing is recognised. In some areas traditional fishing and ordinary fishing are permitted with a permit; in other zones traditional fishing requires a permit but some general fishing does not require a permit. Hunting (of dugong) can occur with a permit in certain zones, but the permit is granted on conditions relating to catch levels. This approach gives higher priority to conservation and general fishing than to Aboriginal traditional hunting and fishing, and it places considerable control in the hands of the agency issuing permits (Law Reform Commission 1986: 164-5).

Australian Capital Territory

Jervis Bay Nature Reserve

Parks in the Australian Capital Territory are managed under the Australian Capital Territory *Nature Conservation Act 1980*. A 1989 amendment allows animals which are 'traditionally killed' to be taken. Jervis Bay Nature Reserve is not regulated under this Act, but by the federal *Public Parks Act* which makes no mention of hunting and gathering. However, the Australian Capital Territory *Nature Conservation Act 1980* applies. The Aborigines at Jervis Bay have not formally asked to forage in the Reserve. If they did, it would have to be clarified whether the Aboriginal community living near the park are a traditional community, before hunting and gathering could be permitted. There are no waters off the national park as the park boundary stops at high tide mark. New South Wales legislation applies to the sea off the coast of the Park. Aboriginal people living on Aboriginal land at Jervis Bay would like to collect shellfish and other marine species, but the New South Wales legislation prohibits such activity.

The Australian Capital Territory manages the Park on behalf of the Commonwealth since self-government. However, Australian Capital Territory planning legislation is about to be enacted that specifically excludes Jervis Bay and thus the Australian Capital Territory would have no mechanism for reserving land at Jervis Bay. The future management of the park is uncertain at this stage, and in the hands of the Commonwealth. Aborigines could be included on a board of management in the future (Bill Logan pers. comm.).

New South Wales

The New South Wales *National Parks and Wildlife Act 1974* and hunting and gathering regulations proclaimed in 1985 apply. The 1985 regulation exempts Aborigines from prosecution for hunting protected species for their own domestic purposes, outside of parks. However, they cannot kill parrots, raptors and endangered fauna. They cannot hunt inside of national parks. Mungo and Mootwingi National Parks and two others have been recently earmarked for joint management and possible Aboriginal ownership and lease-back. Legislation has not been passed as yet. It is understood that this legislation will not alter Aboriginal rights to hunt and gather (John Russell pers. comm.). The only special recognition of Aboriginal traditional fishing rights in New South Wales is an exemption from the requirement for an angling licence to fish in inland waters (Law Reform Commission 1986: 170). Apart from this, Aborigines must apply for licences in the same way as others who wish to use the resource (Fisher 1984: vii; Law Reform Commission 1986: 170).

Victoria

The Victorian *Wildlife Act 1975* and the Victorian *National Parks Act 1975* still apply. Aborigines do not have land rights as such in Victoria (there is no general legislation as there is in the Northern Territory), but there is the Commonwealth *Aboriginal Land (Lake Condah and Framlingham Forest) Act 1987* that resulted in the transfer of two small parcels of land to Aboriginal people. Aborigines have no rights to hunt and gather in or off national parks; in fact no Act specifically mentions Aborigines at all (J. Goff pers. comm.). Aboriginal or non-Aboriginal land-owners may obtain permits to kill kangaroos on privately-owned land.

South Australia

Unnamed Conservation Park

The South Australian *National Parks and Wildlife Act, 1972* and a 1987 amendment to the Act are relevant. It is not illegal for an Aboriginal person to take a native plant or a

protected animal either on a reserve or outside of one for food for dependents or for cultural purposes. However, before an Aborigine can forage in a national park a proclamation allowing this must be in place. The Unnamed Conservation Park in the far west, has such a proclamation over it. This allows all species to be taken (David Barrington pers. comm.).

At present Aborigines do not own any of the land on which national parks are located. There is a proposal for joint management of the Unnamed Conservation Park, but this is at an early stage. It is proposed that the Unnamed Conservation Park will be jointly managed with Maralinga Tjarutja, the incorporated body that represents the Maralinga Aborigines. There is a possibility of future Aboriginal ownership of the Park (Tom Garra pers. comm.).

Witjinara National Park

A proclamation allowing Aborigines to hunt and gather in this Park is in preparation. There is a proposal for joint management of the Witjinara National Park, but this is at a preliminary stage and future ownership of the Park is a possibility.

Gammon Ranges National Park.

The proclamation allowing Aborigines to forage in the park is currently in preparation - there will be some restriction on what Aborigines can take. Joint management of the Gammon Ranges National Park is proposed and the land may possibly eventually be owned by Aborigines. The Adnyamathanha people have a consultative committee which has some input into the management of this Park (Tom Garra pers. comm.). Aborigines regularly forage for food in this National Park and utilise both plant and animal foods such as goanna, lizard, emu, kangaroo, wild oranges and native pears, although this is not strictly legal as yet (National Parks and Wildlife Service 1985: 3, 9).

Yumbarra Conservation Park

Aborigines regularly forage for food here although the proclamation over the park allowing them to do so is not in place as yet. Aborigines here live outside of the Park (David Barrington pers. comm.).

Nullabor National Park, and the Nullabor and Yelabinna Regional Reserves

Aborigines in the far west of the state have formed a committee to work in association with the National Parks and Wildlife Service in a consultative capacity in regard to the formation of these reserve areas. A proclamation allowing Aborigines to forage in the Parks is in preparation. Legislation is being prepared to form reserves called Wilderness Areas. These would possibly be jointly managed and some would be on present Aboriginal land. Recognition of Aboriginal hunting and gathering rights is to be included in the legislation (Tom Garra pers. comm.).

Tasmania

The *Tasmanian National Parks and Wildlife Act 1970* and the *Tasmanian Crown Lands Act 1976* apply. These include no special provisions to accommodate Aboriginal interests. Aborigines cannot forage in or off national parks. Possum and mutton bird permits may be granted at the discretion of the Director, to anyone who applies. On the Bass Strait Islands there is a strong tradition of mutton birding, and Aboriginal people, with a permit, can sell hunted birds commercially.

The *Tasmanian Land Rights Bill* was passed in the Lower House but the Upper House has rejected it. This would have transferred land to the Tasmanian Aboriginal Land Council and also allowed special provision for Aboriginal people, with a permit, to take native species. State reserves and Aboriginal sites are all owned by the State Government (Angela McGowan pers. comm.).

References

- Altman, J.C. 1982. 'Hunting buffalo in north-central Arnhem Land: a case of rapid adaptation among Aborigines', *Oceania*, 52 (4): 274-85.
- Altman, J.C. 1987. *Hunter-Gatherers Today: An Aboriginal Economy in North Australia*. Canberra: Australian Institute of Aboriginal Studies.
- Altman, J.C. 1988. *Aborigines, Tourism and Development: The Northern Territory Experience*. Canberra: North Australia Research Unit.
- Altman, J.C. 1991. *Appropriate Income Support for Aboriginal Australians: Options for the 1990s*, CAEPR Discussion Paper No. 12. Canberra: Centre for Aboriginal Economic Policy Research, Australian National University.
- Altman, J.C. and Taylor, L. 1989. *The Economic Viability of Aboriginal Outstations and Homelands*, Report to the Australian Council for Employment and Training. Canberra: Australian Government Publishing Service.
- Australian Government 1987. *Aboriginal Employment Development Policy Statement, Policy Paper No. 3: Community-Based Employment, Enterprise and Development Strategies*. Canberra: Australian Government Publishing Service.
- Australian National Parks and Wildlife Service 1986. *Kakadu National Park Plan of Management*. Canberra: Australian National Parks and Wildlife Service.
- Australian National Parks and Wildlife Service 1991a. *Uluru (Ayers Rock-Mount Olga) National Park Plan of Management*. Canberra: Australian National Parks and Wildlife Service.
- Australian National Parks and Wildlife Service 1991b. *Kakadu National Park Plan of Management*. Canberra: Australian National Parks and Wildlife Service.
- Beck, W. 1986. Aboriginal Diet Study in the Alligator Rivers Region: A Preliminary Report, unpublished report to the Supervising Scientist for the Alligator Rivers Region, Jabiru.
- Blanchard, C.A. (Chairman) 1987. *Return to Country: The Aboriginal Homelands Movement in Australia*, Report of the House of Representatives Standing Committee on Aboriginal Affairs. Canberra: Australian Government Publishing Service.
- Cane, S. and Stanley, O. 1985. *Land Use and Resources in Desert Homelands*. Darwin: North Australia Research Unit.
- Conservation Commission of the Northern Territory 1987. *Gurig National Park Plan of Management*. Darwin: Conservation Commission of the Northern Territory.
- Conservation Commission of the Northern Territory 1989. *Watarrka National Park Plan of Management*. Darwin: Conservation Commission of the Northern Territory.
- Department of Conservation and Land Management (Western Australia) 1989. *Purnululu (Bungle Bungle) National Park and Conservation Reserve, Draft Management Plan*. Perth: Department of Conservation and Land Management.
- Devitt, J. 1988. Contemporary Aboriginal Women and Subsistence in Remote, Arid Australia, unpublished PhD thesis, University of Queensland, Brisbane.

Fisher, M. 1984. *Aboriginal Customary Law: The Recognition of Traditional Hunting, Fishing and Gathering Rights*, Research Paper No. 15. Sydney: Australian Law Reform Commission.

Fisk, E.K. 1985. *The Aboriginal Economy in Town and Country*. Sydney: George Allen and Unwin.

Law Reform Commission 1986. *The Recognition of Aboriginal Customary Law*, 2 vols. Canberra: Australian Government Publishing Service.

Meehan, B. 1982. *Shell Bed to Shell Midden*. Canberra: Australian Institute of Aboriginal Studies.

National Parks and Wildlife Service (South Australia) 1985. Report of the Interdepartmental Group on Aboriginal Hunting, unpublished report, National Parks and Wildlife Service, Adelaide.

Palmer, K. and Brady, M. 1988. The Diet and Lifestyle of Aborigines in the Maralinga Region, South Australia, unpublished report prepared for Maralinga Tjarutja as part of the Maralinga Rehabilitation Studies, Research Programme No.1: Anthropology, Australian Institute of Aboriginal Studies, Canberra.

Walsh, F. 1991. 'The use of subsistence activities to monitor wildlife populations: a proposal based on research with Martu Aborigines of the Rudall River (Karlamilyi) National Park, Great Sandy Desert, Western Australia', paper presented at Johnstone Centre conference Aboriginal Involvement in National Parks and Protected Areas, 22-24 July 1991.

Williams, N. 1986. 'A boundary is to cross: observations on Yolngu boundaries and permission', in N.M. Williams and E.S. Hunn (eds) *Resource Managers: North American and Australian Hunter-Gatherers*. Canberra: Australian Institute of Aboriginal Studies.

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